



Model CS4400 Frequency Converter System

The CS4400 Frequency Converter System is a digitally controlled frequency agile converter for troposcatter and line-of-sight microwave radio. The system incorporates two transmit channels, four receive channels and redundant rubidium reference oscillators supporting quad diversity communications, and is field tunable over the 4.4 to 5.0 GHz band. All filters are motor driven and tuned under the control of the redundant system controllers in the CS4400. All functions including frequency changes can be controlled from the front panel or remotely via SNMP or M&C port. Redundant architecture and modular construction are utilized throughout for maximum availability. When combined with Comtech's CS67200 20 Mb/s modem and CSM8800 E1/IP multiplexer, the CS4400 is an integral part of a complete microwave terminal used for beyond-line-of-sight or line-of-sight communication systems.



Standard Features

- Two independent transmit channels and four receive channels
- Fully automated tuning
- Hot-swappable modular construction
- Easy to read vacuum fluorescent display
- Up-down left-right keys for easy menu driven frequency and function control
- Embedded processors monitor critical system functions
- All functions fully controllable from the front panel or via SNMP or M&C port
- Windows based graphical user interface
- 4.4 to 5.0 GHz frequency range in 100 kHz steps
- Independent gain control of transmit and receive channels
- Built in self test and monitoring functions
- Redundant power distribution
- Redundant self contained 10 MHz rubidium timing and frequency reference
- Redundant microprocessor control systems
- Redundant internal clock distribution



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Upconverter Specifications

Frequency Range	4.4 to 5.0 GHz
Frequency Tuning Steps	100 kHz
RF Power Out	+33 dBm
IF Frequency	70 MHz
IF Input Impedance	50 ohms
Gain IF input to TX output	23 to 33 dB
Bandwidth, 1 dB	$f_o \pm 16$ MHz
Group delay, $f_o \pm 13$ MHz	Less than 2.0 ns, peak-to-peak

Downconverter Specifications

Frequency Range	4.4 to 5.0 GHz
Frequency Tuning Steps	100 kHz
IF Power Out	+10 dBm
IF Frequency	70 MHz
IF Output Impedance	50 ohm
Gain RX input to IF output	0 to 10 dB
Bandwidth, 1 dB	$f_o \pm 16$ MHz
Group delay, $f_o \pm 13$ MHz	Less than 2.0 ns, peak-to-peak

DC Power

Supply Voltage	42 to 56 VDC
Current	5.5 A

Mechanical

Front Panel Width	19"
Chassis Width behind front panel	17" max. (excluding rack slides)
Height	3 RU 5.25"
Length	18.5" max. (excluding mating connectors)
Weight	35 lb. max.



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